FIG. 1

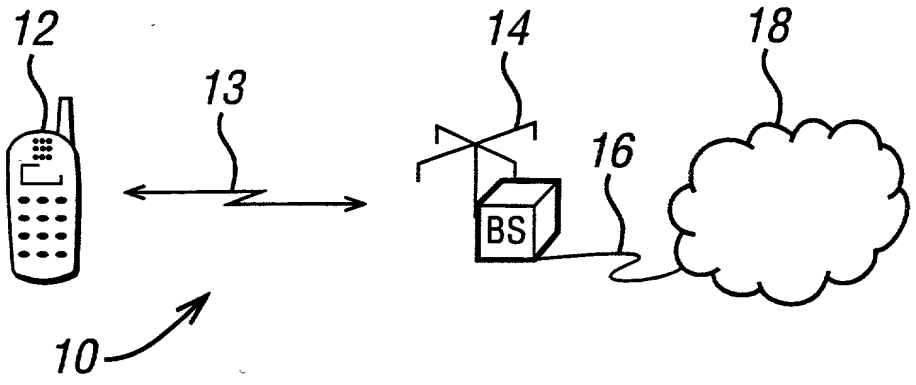


FIG. 3

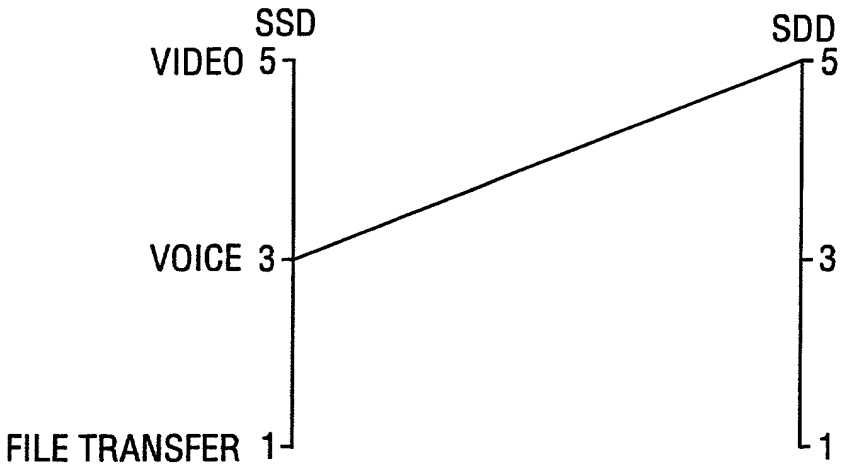


FIG. 4

JITTER	10ms	20ms	BER	10^{-5}	10^{-3}

FIG. 2

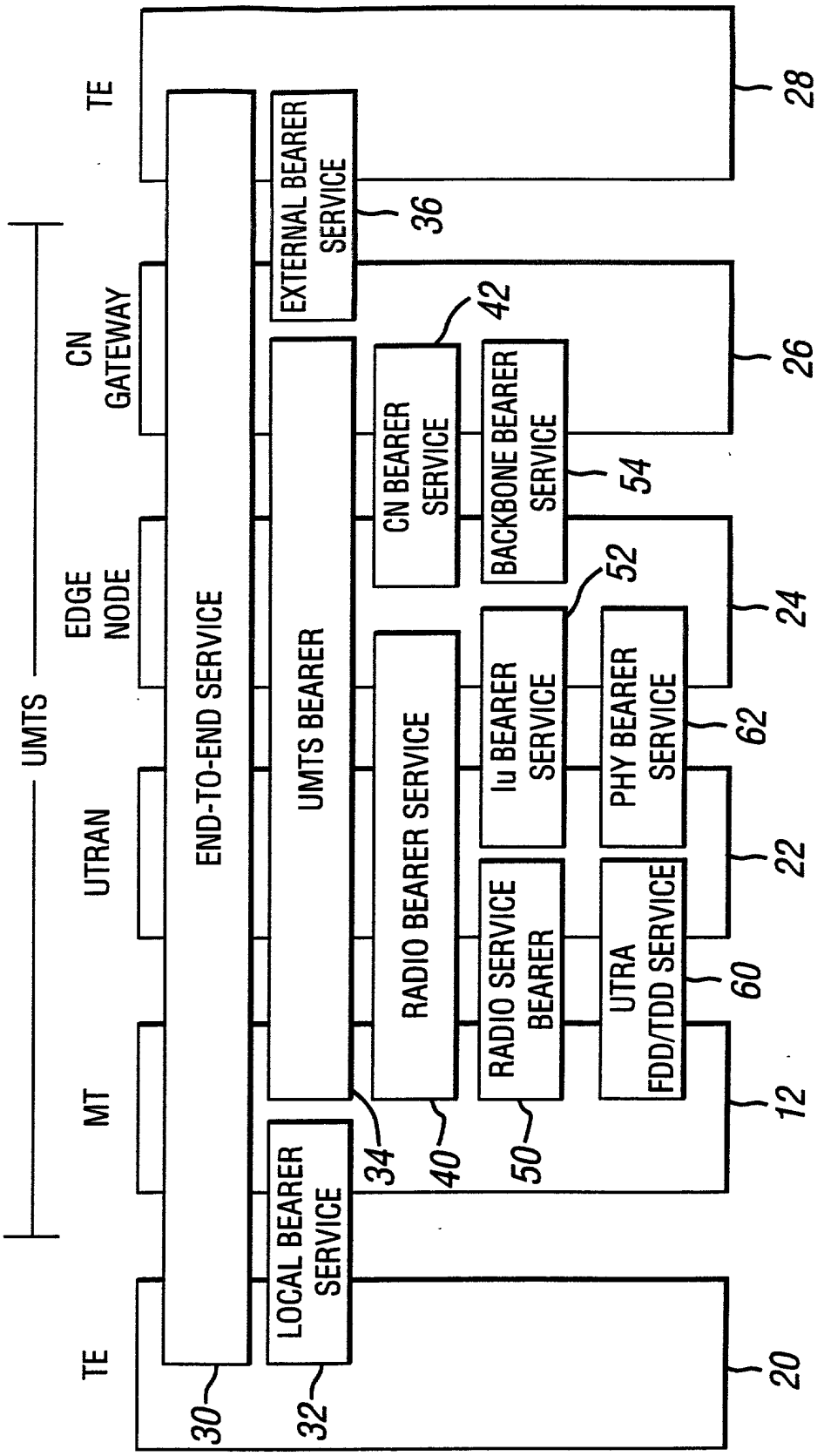

UMTS
TE
MT
UTRAN
EDGE NODE
CN GATEWAY
TE
END-TO-END SERVICE
LOCAL BEARER SERVICE
UMTS BEARER
RADIO BEARER SERVICE
RADIO SERVICE BEARER
UTRA FDD/TDD SERVICE
Iu BEARER SERVICE
PHY BEARER SERVICE
CN BEARER SERVICE
BACKBONE BEARER SERVICE
EXTERNAL BEARER SERVICE
30
32
34
40
50
60
62
52
42
54
36
20
12
22
24
26
28

FIG. 5

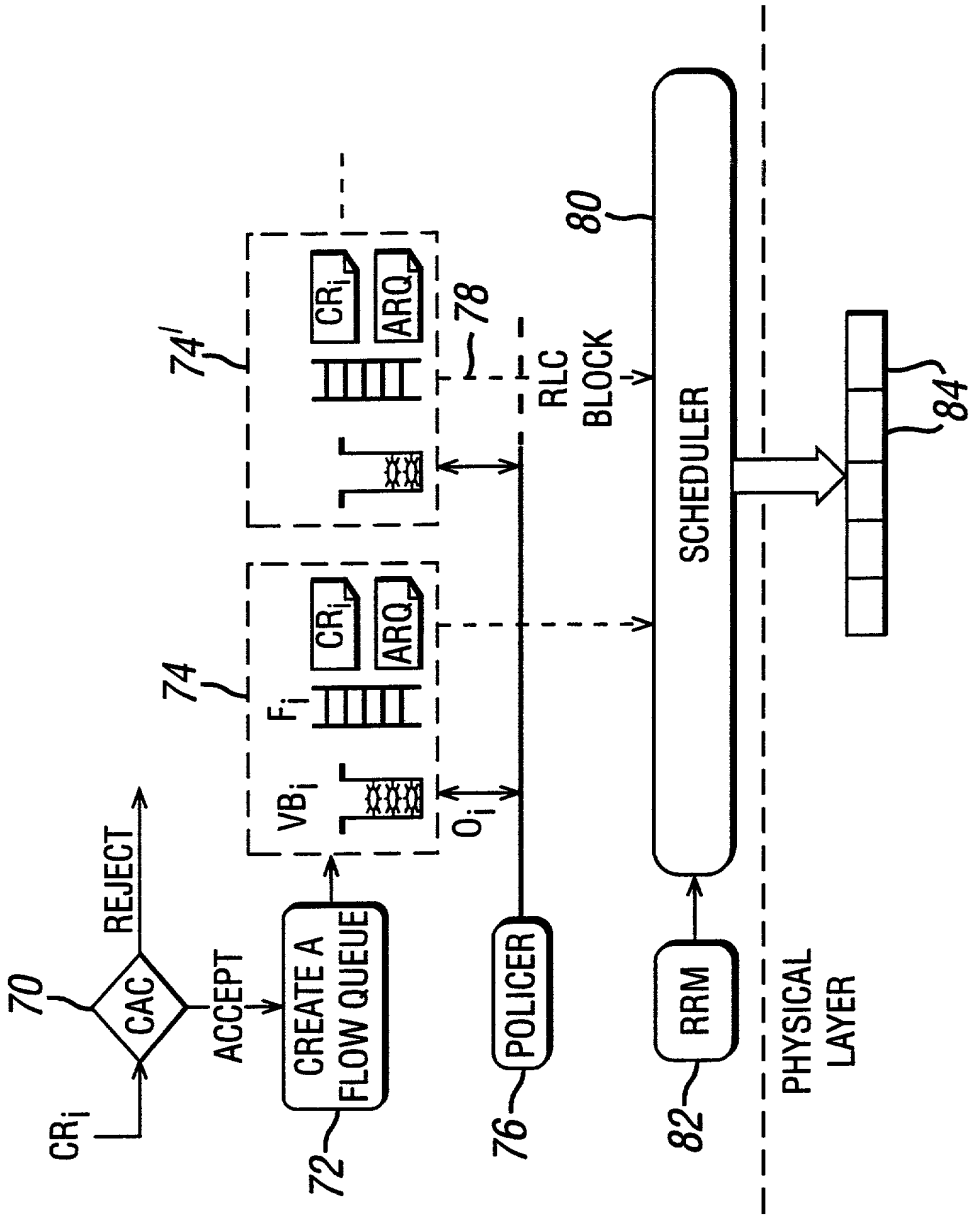

70
CAC
REJECT
ACCEPT
CR_i
CREATE A FLOW QUEUE
72
74
VB_i
F_i
CR_i
ARQ
74'
78
O_i
POLICER
76
RLC BLOCK
80
SCHEDULER
RRM
82
PHYSICAL LAYER
84

FIG. 6

connection	SDD	SSD	BW
i	4	3	X
j	0	5	Y
k	3	3	Z

FIG. 7

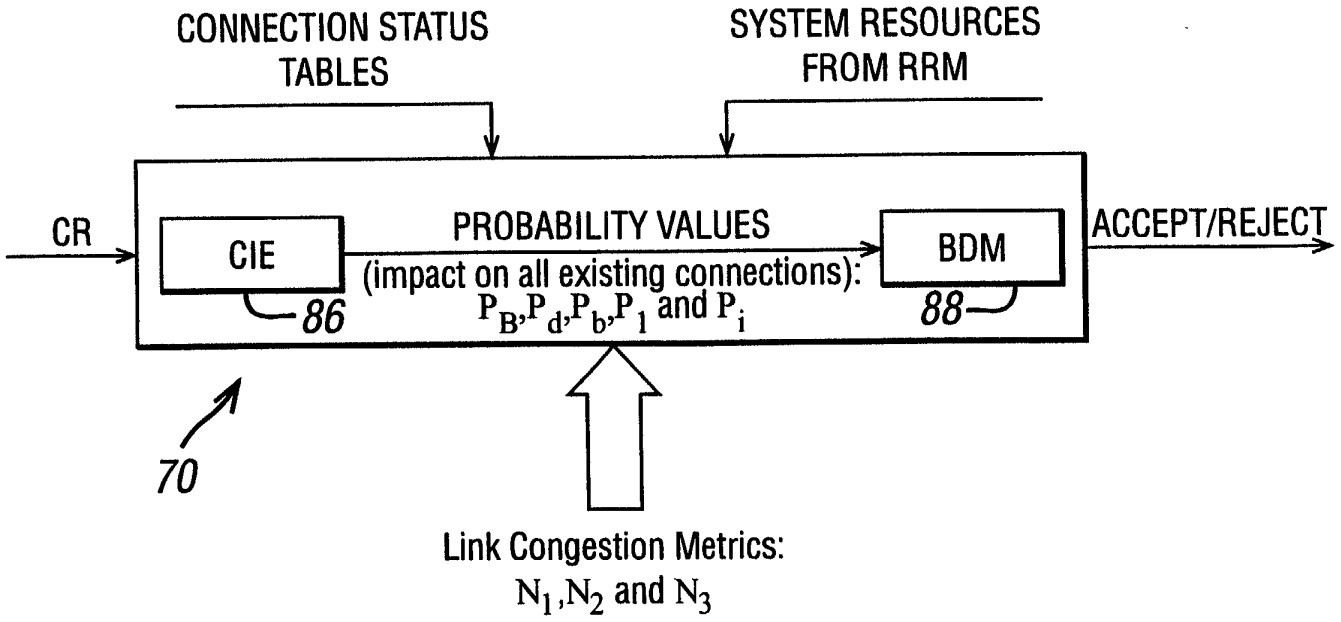


FIG. 8

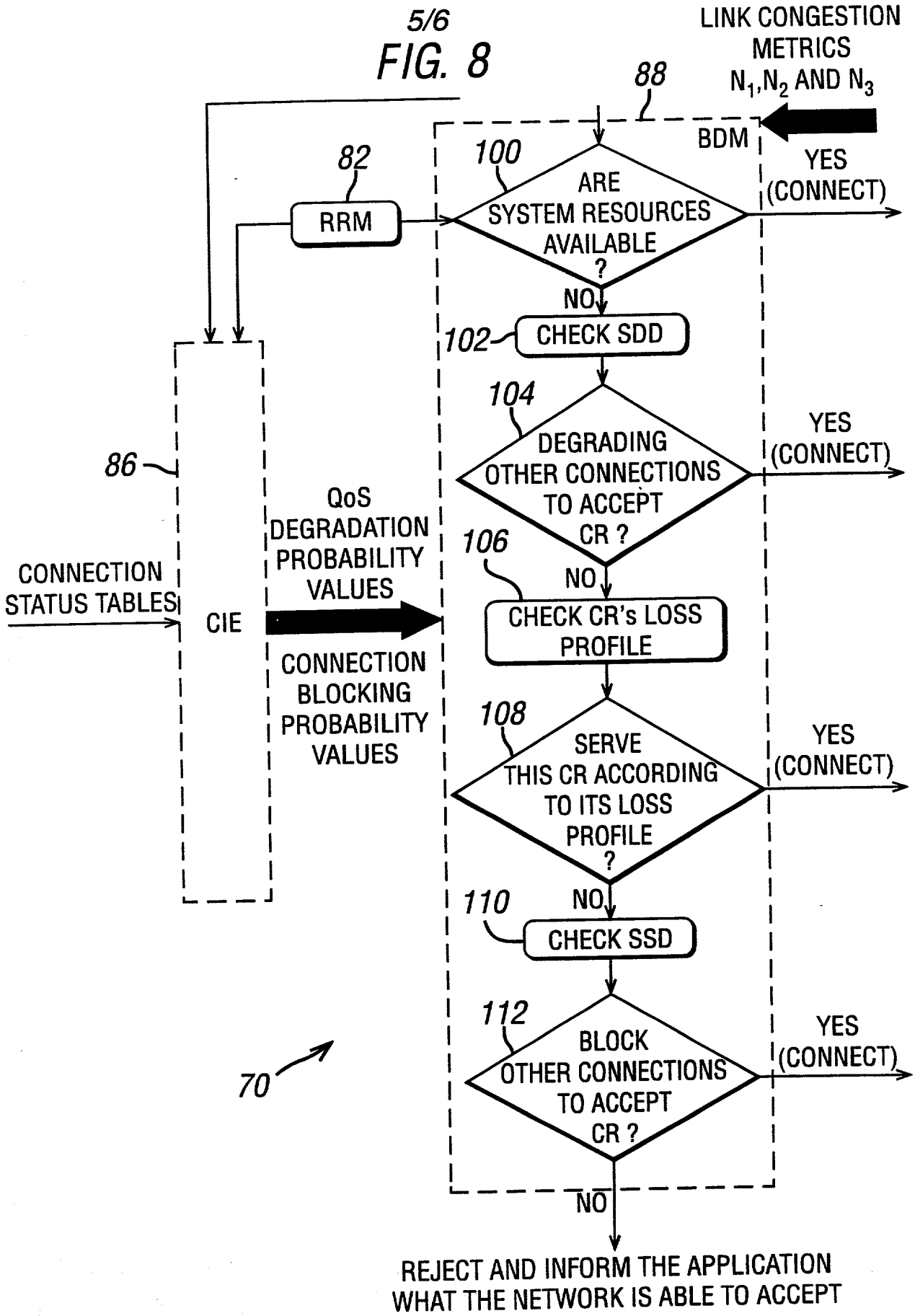

LINK CONGESTION METRICS N_1,N_2 AND N_3
88
BDM
82
RRM
100
ARE SYSTEM RESOURCES AVAILABLE ?
YES (CONNECT)
NO
102
CHECK SDD
104
DEGRADING OTHER CONNECTIONS TO ACCEPT CR ?
YES (CONNECT)
86
QoS DEGRADATION PROBABILITY VALUES
106
NO
CONNECTION STATUS TABLES
CIE
CHECK CR's LOSS PROFILE
CONNECTION BLOCKING PROBABILITY VALUES
108
SERVE THIS CR ACCORDING TO ITS LOSS PROFILE ?
YES (CONNECT)
110
NO
CHECK SSD
112
BLOCK OTHER CONNECTIONS TO ACCEPT CR ?
YES (CONNECT)
70
NO
REJECT AND INFORM THE APPLICATION WHAT THE NETWORK IS ABLE TO ACCEPT

FIG. 9

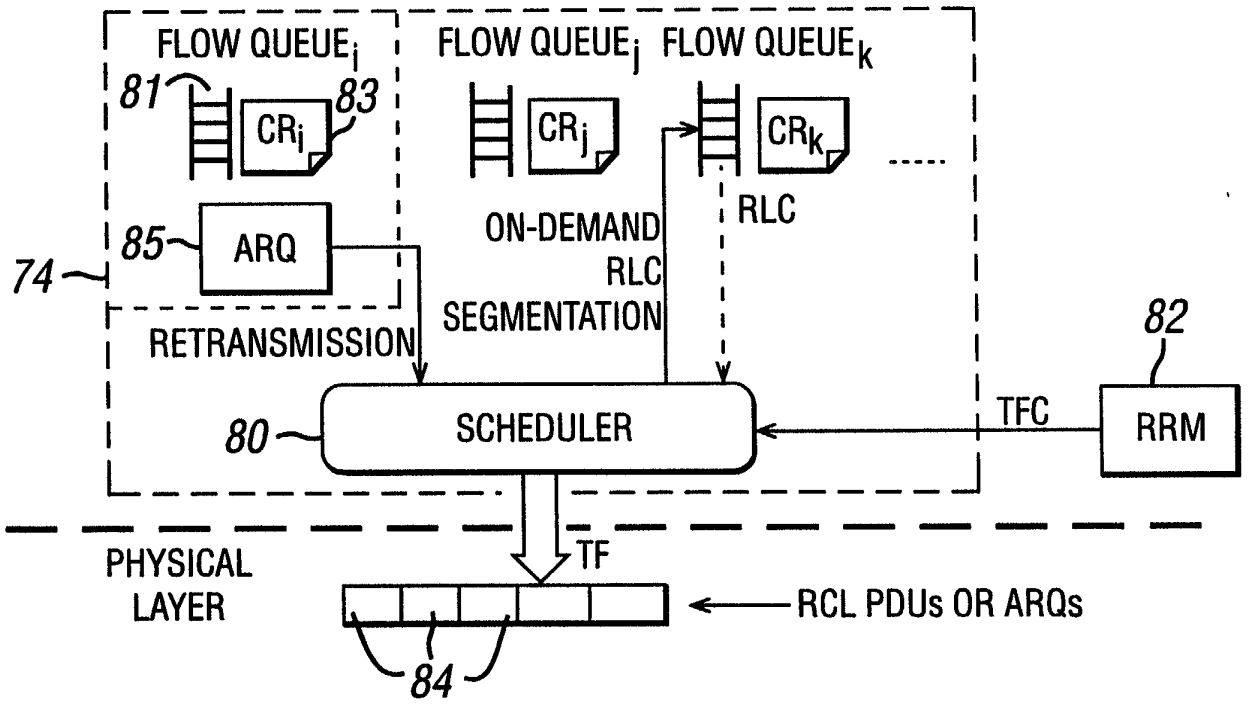
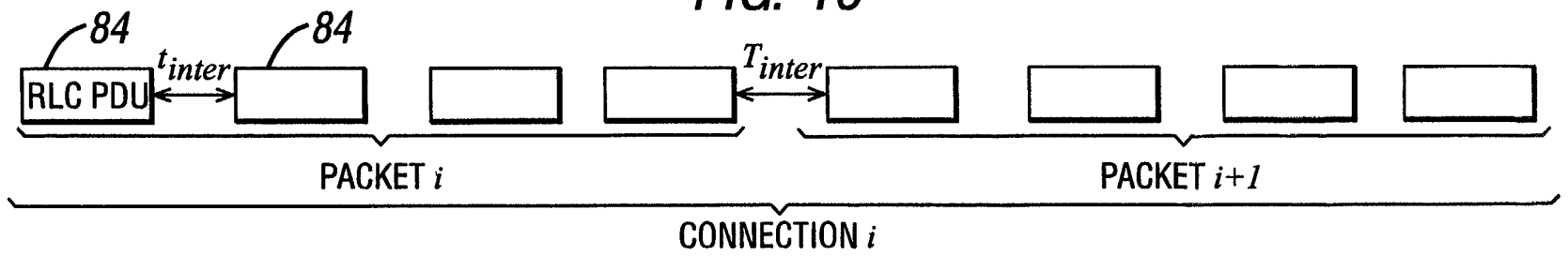

FLOW QUEUE$_i$
FLOW QUEUE$_j$
FLOW QUEUE$_k$
81
83
CR$_i$
CR$_j$
CR$_k$
RLC
85
ARQ
74
ON-DEMAND RLC SEGMENTATION
RETRANSMISSION
82
80
SCHEDULER
TFC
RRM
PHYSICAL LAYER
TF
RCL PDUs OR ARQs
84

FIG. 10


84
84
RLC PDU
t_{inter}
T_{inter}
PACKET i
PACKET $i+1$
CONNECTION i